

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of:
Frank MILLER et al.

For: DOSING DEVICE

Filed: April 12, 2006

Serial No.: 10/534,194

Examiner: Davis D. Hwu

Art Unit: 3752

Confirmation No.: 9976

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office via the Office electronic filing system on **April 2, 2009**.

Signature: /Wendy Espinal/
Wendy Espinal

TRANSMITTAL FOR REPLY BRIEF PURSUANT TO 37 C.F.R. § 41.41

SIR:

Accompanying this Reply Brief Transmittal is a Reply Brief pursuant to 37 C.F.R. § 41.41 for filing in the above-identified patent application. The two-month response date to the Examiner's Answer dated February 5, 2009 is April 5, 2009.

While no fee is believed to be due, the Commissioner is authorized to charge, as necessary and/or appropriate, any additional fees (including any extension fees) or credit any overpayment to Deposit Account No. **11-0600**.

Respectfully submitted,

Dated: April 2, 2009

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REPLY BRIEF PURSUANT TO 37 C.F.R. § 41.41

SIR:

This paper is responsive to the “Examiner’s Answer” dated February 5, 2009 in connection with the above-captioned application.

1. STATUS OF CLAIMS

Claims 1 to 18, and 27 have been canceled.

Claims 19 to 26, and 28 to 41 are pending.

Claims 19, 20, 28 to 30, 32, 33, 35, 36, and 39 stand rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,409,169 (“Saikalis et al.”).

Claims 21 to 26, 31, 34, 37, 38, 40, and 41 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Saikalis et al.

2. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

A. Whether claims 19, 20, 28 to 30, 32, 33, 35, 36, and 39 are anticipated under 35 U.S.C. § 102(b) by Saikalis et al.

- B. Whether claims 21 to 26, 31, 34, 37, 38, 40, and 41 are patentable under 35 U.S.C. § 103(a) over Saikalis et al.

3. **ARGUMENT**

A. **Rejection of Claims 19, 20, 28 to 30, 32, 33, 35, 36, and 39 Under 35 U.S.C. § 102(b)**

Claims 19, 20, 28 to 30, 32, 33, 35, 36, and 39 stand rejected under 35 U.S.C. § 102(b) as anticipated by Saikalis et al. It is respectfully submitted that Saikalis et al. does not anticipate the present claims for at least the following reasons.

To anticipate a claim, each and every element as set forth in the claim must be found in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of Calif., 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Furthermore, “[t]he identical invention must be shown in as complete detail as is contained in the . . . claim.” Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). That is, the prior art must describe the elements arranged as required by the claims. In re Bond, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990).

Claim 19 relates to a dosing device for a liquid fuel, including, *inter alia*, the features of at least one metering device; and a nozzle body adjoining the metering conduit, the nozzle body including at least one spray discharge opening that opens into a metering chamber, the nozzle body including a downstream support element having a swirl insert arranged on a spray-discharge side, the at least one spray discharge opening arranged in the swirl insert, in which *the swirl insert includes at least one seat element having the at least one spray discharge opening and a swirl element arranged upstream from the seat element*.

Saikalis et al. does not identically disclose, or even suggest, all of the claimed features of claim 19. For example, Saikalis et al. does not indicate the feature of at least one seat element having at least one spray discharge opening. Instead, Saikalis et al. indicates a fuel swirl plate A having a valve seat, and a separate, downstream air swirl plate B having a port, or spray discharge opening. (Saikalis et al., col. 11, lines 36 to 39; col. 11, line 59 to col. 12, line 2; and Figures 8 to 11). Thus, Saikalis et al. merely indicates one swirl plate with a valve seat, and another, separate swirl plate with a spray discharge opening, but Saikalis et al. does not indicate a single element having both a valve seat and a spray discharge opening, as provided for in the context of claim 19. Therefore, Saikalis et al. does not identically disclose, or even suggest, the feature of *at least one seat element having the at least one spray discharge opening*.

Further, Saikalis et al. does not indicate the feature of a swirl element arranged upstream from a seat element. As more fully set forth above, Saikalis et al. indicates a valve seat formed in fuel swirl plate A. (Saikalis et al., col. 10, line 55; col. 11, line 39; and Figures 8, 9, 10A, and 11). Thus, since the valve seat and fuel swirl plate A are a single element, the swirl element cannot be upstream of the seat element; that is, the plate A cannot be upstream of itself. In addition, the air swirl plate B of Saikalis et al. also cannot be a swirl element arranged upstream from the valve seat in fuel swirl plate A because plate B is arranged downstream of plate A. Therefore, Saikalis et al. does not identically disclose, or even suggest, the feature of *a swirl element arranged upstream from the seat element*.

In addition, the Response to Arguments section of the Final Office Action states that “[s]ince the Applicants has [sic] not recited any further limitations of their seat element, the element B of Saikalis et al. is considered to be a seat element of the swirl insert because swirl element A sits atop element B.” (Final Office Action, p. 3). However, it is respectfully submitted that one of ordinary skill in the art would understand a seat element to include a valve seat. Thus, one of ordinary skill in the art would understand the seat element as recited in the presently pending claims to include a valve seat. As more fully set forth above, swirl plate A, and not swirl plate B, of Saikalis et al. includes a valve seat. Thus, since swirl plate B does not include a valve seat, swirl plate B cannot be considered to be a seat element. Therefore, as more fully set forth above, Saikalis et al. does not identically disclose, or even suggest, the features of *at least one seat element having the at least one spray discharge opening and a swirl element arranged upstream from the seat element*.

Moreover, the Examiner’s Answer states that “the swirl element B comprises a seat section . . . on which a swirl element A sits,” and “if two parts are in contact with each other, . . . then one of the parts can be considered a seat for the other part.” (Examiner’s Answer, pp. 4 to 6). The Examiner’s Answer apparently asserts that swirl plate B constitutes a seat element merely because swirl plate A may contact swirl plate B. By this reasoning, any element that contacts swirl plate A may be considered a seat element. However, it is respectfully submitted that one of ordinary skill in the art would not understand a seat element to refer merely to a “contacting element,” as apparently asserted by the Examiner’s Answer, but as more fully set forth above, one of ordinary skill in the art would understand a seat element, as recited in the presently pending claims, to include a valve seat.

Furthermore, the Examiner’s Answer states that “[i]t is clear from Figures 8 and 9 that the element A sits on element B.” (Examiner’s Answer, p. 6). However, although Figures 8 and 9 of Saikalis et al. show swirl plate A and swirl plate B in close proximity,

there is absolutely no disclosure in Saikalis et al. that swirl plate A is in fact seated upon swirl plate B. (*See e.g.*, Saikalis et al., col. 10, line 45 to col. 12, line 38). Indeed, nowhere does Saikalis et al. even refer to swirl plate A contacting swirl plate B. Accordingly, the assertion of the Examiner's Answer that "element A sits on element B" is based merely on speculation and conjecture. Therefore, Saikalis et al. does not identically disclose, or even suggest, the features of *the swirl insert includes at least one seat element having the at least one spray discharge opening and a swirl element arranged upstream from the seat element*.

In view of the foregoing, it is respectfully submitted that Saikalis et al. does not identically disclose, or even suggest, all of the features included in claim 19. Accordingly, it is respectfully submitted that Saikalis et al. does not anticipate claim 19.

As for claims 20, 28 to 30, 32, 33, 35, 36, and 39, which ultimately depend from claim 19 and therefore include all of the features included in claim 19, it is respectfully submitted that Saikalis et al. does not anticipate these dependent claims for at least the same reasons more fully set forth above.

In view of all of the foregoing, reversal of this rejection is respectfully requested.

B. Rejection of Claims 21 to 26, 31, 34, 37, 38, 40, and 41 Under 35 U.S.C. § 103(a)

Claims 21 to 26, 31, 34, 37, 38, 40, and 41 were rejected under 35 U.S.C. § 103(a) as unpatentable over Saikalis et al. It is respectfully submitted that Saikalis et al. do not render unpatentable claims 21 to 26, 31, 34, 37, 38, 40, and 41 for at least the following reasons.

In order for a claim to be rejected for obviousness under 35 U.S.C. § 103(a), the prior art must teach or suggest each element of the claim. *See Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 934 (Fed. Cir. 1990), *cert. denied*, 111 S. Ct. 296 (1990); *In re Bond*, 910 F.2d 831, 834 (Fed. Cir. 1990). In addition, as clearly indicated by the Supreme Court, it is "important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed. *See KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007). Further, the Supreme Court in *KSR* noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. M.P.E.P. §2143.

Claims 21 to 26, 31, 34, 37, 38, 40, and 41 ultimately depend from claim 19. As more fully set forth above, Saikalis et al. does not disclose, or even suggest, the features

that a swirl insert includes at least one seat element having at least one spray discharge opening and a swirl element arranged upstream from a seat element.

Accordingly, it is respectfully submitted that Saikalis et al. does not disclose, or even suggest, all of the features included in claim 19, from which claims 21 to 26, 31, 34, 37, 38, 40, and 41 ultimately depend. As such, it is respectfully submitted that Saikalis et al. does not render unpatentable claims 21 to 26, 31, 34, 37, 38, 40, and 41, which ultimately depend from claim 19. *In re Fine, supra* (any dependent claim that depends from a non-obvious independent claim is non-obvious).

In view of all of the foregoing, reversal of this rejection is respectfully requested.

4. **CONCLUSION**

For at least the reasons indicated above and those set forth in the Appeal Brief, Appellants respectfully submit that the art of record does not disclose or suggest the subject matter as recited in the claims of the above-identified application. Accordingly, it is respectfully submitted that the subject matter as set forth in the claims of the present application is patentable.

In view of all of the foregoing, reversal of all outstanding rejections is therefore respectfully requested.

Respectfully submitted,

Dated: April 2, 2009

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